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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/717,859
Filing Date: November 19, 2003
Appellant(s): EAGLES, DANA

MAILED
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GROUP 1700

Albany International Corp.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/30/2007 appealing from the Office action mailed 10/23/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 26-56.

Claims 1-25 are withdrawn from consideration as not directed to the elected invention.

No claims are allowed.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Claims 26-35, 39-42, 44-56 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rexfelt et al. (US 5,360,656).

Claims 26-56 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Davenport (US 20020139503).

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claims 26-56 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Denton et al. (US 5,888,915) is withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,360,656	REXFELT ET AL.	11-1994
2002/0139503	DAVENPORT	12-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 26-35, 39-42, 44-56 are rejected under 35 U.S.C.102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rexfelt et al. (US 5,360,656).

Rexfelt et al. teach that two or more spirally-wound layers in which the spiral turns in the different layers are placed crosswise, i.e. such that the longitudinal threads of the strip in one layer make an angle both with the machine direction of the press felt and with the longitudinal threads of the strip in another layer. Variations in the thread tension across the base fabric can be reduced considerably, since the longitudinal threads of the final layer (=warp threads of a flat-woven strip) are not parallel to the machine direction of the press felt. Instead, the tension at each point becomes a mean of the tension in many different longitudinal threads. No irregularities are formed at the loom edges during weaving and the crossed longitudinal threads means an increased flow resistance and that two or more such spirally-applied layers can also be made with different thread spacings in the different layers. See col.3.

In figures 1 and 2, Rexfelt et al. illustrates a flat-woven fabric strip of yarn material having two mutually orthoganol thread systems consisting of longitudinal threads (warp threads) and cross threads (weft threads) with two longitudinal which are cut before the strip is wound on to the supply reel. See col.4,ln.20-60

In figure 3, Rexfelt et al. illustrates that each longitudinal thread (warp thread) of the strip makes an angle with the machine direction MD of the fabric/press felt. These oblique longitudinal threads run uninterrupted through the entire base fabric layer, whilst the cross threads (weft threads) are intermittently interrupted. Rexfelt et al. also teach that it is commonly known that a traditional tubular-woven endless base fabric, has the longitudinal threads (weft threads) parallel to the machine direction and the cross

threads (warp threads) run uninterrupted across the entire width of the base fabric. See col.4,ln.60-col.5,ln.5.

In figure 4 Rexfelt et al. illustrate a multilayer type spirally-wound layers placed crosswise on each other yielding the advantage of an increased flow resistance occurring, since the longitudinal threads in both layers make an angle with each other. Rexfelt et al. also teach a textile dispensed with a spirally-wound layer of base fabric combined with a traditionally tubular-woven layer of base fabric to form a base fabric of multi-layer type. See col.5,ln.10-15.

Rexfelt et al. illustrate in figure 5 how the end edges of two juxtaposed spiral turns are in edge-to-edge relationship and joined by sewing. Figure 5 also schematically illustrates a top layer of fiber material, such as a batt layer, arranged on the base fabric by needling. See col.5,ln.30-35.

Rexfelt et al. illustrate in figure 6 shows an adjacent longitudinal edge portions of adjoining spiral turns are arranged by overlapping, wherein the edges having a reduced thickness so as not to give rise to an increased thickness in the area of transition. See col.5,ln.40-45.

In figure7 Rexfelt et al. illustrate that the spacing between longitudinal threads is increased at the edges of the strip and the longitudinal threads of the edge portions are interlaced. The result is an unchanged spacing between longitudinal threads in the area of transition. See col.5,ln.45-50.

Accordingly, the teachings of Rexfelt et al. anticipate the material limitations of the instant claims.

Alternatively, even if the teachings of Rexfelt et al. are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art, to arrive at a textile structure made of spiral winding machine direction (MD) yarns to form a system having a defined width; and depositing a pattern of cross machine direction (CD) elements onto said system of MD yarns because Rexfelt et al. teach a patterned PMC textile structure having spirally-wound layers placed crosswise on each other wherein the longitudinal threads make an angle with each other and can be combined with a traditionally tubular-woven layer of base fabric to form a multi-layer type fabric.

Claims 26-56 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Davenport (US 20020139503).

Davenport teaches an on-machine-seamable papermaker's fabric has a base structure which is a flattened array of a spirally wound multicomponent yarn. The flattened array has two layers, two sides, a length, a width and two widthwise edges. In each turn of the spiral winding, the multicomponent yarn has a substantially lengthwise orientation and is joined side-by-side to those adjacent thereto by a fusible thermoplastic material in each of the two layers. The multicomponent yarn forms seaming loops along the two widthwise edges. At least one layer of staple fiber material is needled into one of the two sides of the base structure and through the two layers. See abstract.

Davenport teaches that the multicomponent yarn is spirally wound to a desired width, portions of the array are exposed to heat at a temperature sufficient to melt the at least one thermofusible strand or coating, but not the other individual yarn strands, of the multicomponent yarn. The fused thermoplastic material of the thermofusible strand, strands or coating flows between adjacent turns of the multicomponent yarns in the array. When the fused thermoplastic material is allowed to solidify, it joins the adjacent multicomponent yarns to one another in a side-by-side manner. See [0024]

Davenport teaches that the array of multicomponent yarns is flattened, and, as such, has two layers, two sides, a length, a width and two widthwise edges. The multicomponent yarn in each of the plurality of turns has a substantially lengthwise orientation in each of the two layers. Along the two widthwise edges of the flattened array are a plurality of seaming loops formed by the multicomponent yarn. The seaming loops, preferably, are formed by every other turn of the multicomponent yarn. See [0025].

Davenport teaches that the individual yarn strands of the multicomponent yarn 16, other than the thermofusible strand or strands, are extruded from synthetic polymeric resin materials, such as polyamide, polyester, polyetherketone, polypropylene, polyaramid, polyolefin, polyphenylene sulfide (PPS) and polyethylene terephthalate (PET) resins, and copolymers thereof, and incorporated into yarns according to techniques well known in the textile industry and particularly in the paper machine clothing industry. See [0041]. The thermofusible strand, strands or coating are of a thermoplastic material having a melting point lower than that of the other

individual yarn strands making up the multicomponent yarn 16. The thermoplastic material may, for example, be polyamide 66, low-melt polyamide 6 or polyurethane. See [0042].

Davenport teaches that the press fabric is planar and has no yarn knuckles, thus is smooth. There are no cross-machine-direction (CD) yarns to unravel to form the loops required for seaming, yet the base structure has CD stability because the machine-direction (MD) yarns are bonded side-by-side to one another. The cost to produce a multilayer structure in accordance with the present invention is less than that of the prior-art woven structures. Finally, the Z-direction compressibility, openness and void volume of the base structure can be controlled by preselecting the number of thermofusible strands in the multicomponent yarn. See [0062].

Accordingly, the teachings of Davenport anticipate the material limitations of the instant claims.

Alternatively, even if the teachings of Davenport are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art, to arrive at a textile structure made of spiral winding machine direction (MD) yarns to form a system having a defined width; and depositing a pattern of cross machine direction (CD) elements onto said system of MD yarns because Davenport teach an on-machine-seamable papermaker's textile structure having multicomponent yarn that is spirally wound to a desired width, and having cross machine direction stability.

(10) Response to Argument

Appellant's arguments filed 8/30/2007 have been fully considered. Appellant's urge that Rexfelt, is directed to spiral winding of fabric strips, and not spiral winding yarns.

Contrary to Appellant's arguments, Rexfelt et al. teach two or more spirally-wound layers in which the spiral turns in the different layers are placed crosswise, i.e. such that the longitudinal threads in one layer make an angle both with the machine direction of the press felt and with the longitudinal threads in another layer. Thus, Rexfelt et al. do teach spiral winding of yarns since they teach a fabric strip of yarn material in said first-mentioned layer and the fabric strip of yarn material in said second layer are wound mutually crosswise, such that the longitudinal threads of the fabric strip of yarn material in the second layer make an angle both with said machine direction of the press felt and with the longitudinal threads of the fabric strip of yarn material in the first-mentioned layer. Also, Rexfelt teach that no irregularities are formed at the loom edges during weaving and the crossed longitudinal threads means an increased flow resistance and that two or more such spirally-applied layers can also be made with different thread spacings in the different layers. See col.3, ln.1-5 and col.5,ln.20-25 and claim 14.

Appellant's also urge that Davenport does not teach or suggest depositing a pattem of cross-machine direction (CD) elements onto a system of MD yarns. Specifically Appellant's urge that Davenport teach that there are no cross-machine-direction (CD) yarns in that fabric, and the base structure has CD stability because of the bonding of the machine-direction (MD) yarns side-by-side to one another.

Contrary to Appellant's arguments, Davenport et al. clearly state that that there are no cross-machine-direction (CD) *yarns to UNRAVEL* when the base structure is not woven. The instant claims to do not recite CD yarns but instead recite CD elements. Accordingly, examiner draws attention to figure 6 and paragraphs [0018] and [0049] where Davenport et al. teach a woven base fabric having both MD yarns and CD interdigitated loops.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Examiner Preeti Kumar P.K.

Conferees:

/Romulo Delmendo/

Romulo Delmendo, Appeal Conferee

Harold Pyon

/Harold Pyon/
HAROLD PYON
SUPERVISORY PATENT EXAMINER